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EXAMINER
DO, ANH HONG

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 October 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,11,12 and 14-17* is/are rejected.

7)☒ Claim(s) *8-10 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage

      application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-17 have been considered but are

moot in view of the new ground(s) of rejection.

With regard to the Applicant's argument that the patient data is unrelated to the

version of the image as described by states of compression, it should be noted that the

image/data input/output device 62 in Figure 8 of the Hiyama outputs not only the

patient's ID data but also the image data recorded in the image recording device 6 or

12, and the monitor display 63 displays the images received from the image device 62,

wherein the image data the monitor display 63 receives inherently includes the

specification of version of the image data.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed
> publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3.   Claims 1 and 15-17 are rejected under 35 U.S.C. 102(a) as being anticipated by

Hiyama et al. (U.S. Patent No. 5,361,203).

Regarding claim 1, Hiyama discloses an image storage and display system

comprising an image server 6 storing image data recorded on a high readout-speed

capable storage medium 70 and a display terminal 63 connected to said image server

via a network (Fig. 8), wherein:

- said image server 6 is provided with a storage control means 68 that creates

reversible compressed image data of the original image data, and at least one

irreversible compressed image data (Fig. 8; col. 5, lines 17-26), and stores in storage

medium 70 said reversible compressed image data and said irreversible compressed

image data, which stand for the multiple versions of image data (Fig. 8 and col. 5, lines

26-30);

- said display terminal 63 is provided with an input means 62 capable of

inherently receiving specification of a version of the image data or the image data group

to be displayed on said display terminal 63, and acquisition means 72 for acquiring the

version of said image data or said image data group received in said input means (Fig.

8).

Regarding claim 15, Hiyama teaches wherein said reversible compressed image

data and said at least one irreversible compressed image data are stored on one

physical device 70 (Fig. 8; col. 5, lines 26-30).

Regarding claim 16, Hiyama teaches wherein the version of the image data is

defined by compression type (col. 5, lines 17-23, teaching irreversible compression

type).

Regarding claim 17, Hiyama teaches wherein the image data group represents a

plurality of image data with the same version (col. 4, line 65 – col. 5, line 4, teaching a

plurality of image data comprising the endoscope image data and the ultrasonic image

data in the same version).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 2-7, 11, 12 and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hiyama et al. (U.S. Patent No. 5,361,203) in view of Yoshida et al.

(U.S. Patent No. 6,690,417).

Regarding claim 2, Hiyama discloses storage control means 68 (Fig. 8).

Hiyama does not disclose expressly changing a compression ratio of said

irreversible compressed image data.

Yoshida discloses controlling (i.e., changing) a compression ratio of the

irreversible compressed image data (col. 3, lines 43-50 and col. 31, lines 26-28).

Hiyama & Yoshida are combinable because they are from image compression

field.

At the time of the invention, it would have been obvious to a person of ordinary

skill in the art to change the compression ratio of the irreversible compressed image

data as taught by Yoshida in the compression system of Hiyama.

The suggestion/motivation for doing so would have been able to control the

amount of image data to be stored in the memory (Yoshida, col. 3, lines 47-50).

Therefore, it would have been obvious to combine Hiyama with Yoshida to obtain

the invention as specified in claim 2.

Regarding claims 3 and 4, Hiyama teaches:

- said input means 62 is capable of receiving specification of the version of image

data as the image usage purpose represented by each version of said image data

(corresponding to the patient data) (Fig. 8, and col. 5, lines 13-17);

- said storage control means 68 assigns to each version a parameter

representing the image usage purpose represented by each version of image data (col.

5, lines 23-26, teaches a patient data is added to each version of the image data), and

stores each version of image data in the storage medium 70 (Fig. 8);

- said acquisition means 72 acquires the version of the image data corresponding

to the desired image usage purpose received in said input means 62 (Fig. 8).

Regarding claim 5, Hiyama teaches:

- said storage control means 68 obtains said irreversible compressed image data

by subjecting said original image data to a progressively extractable data compression

process (Fig. 8);

- said acquisition means 72, for cases in which the version received in said input

means 62 corresponds to irreversible compressed image data, changes the progressive

expansion level of said irreversible compressed image data, according to the

predetermined conditions, and acquires said irreversible compressed image data (Fig.

8, and Fig. 10: image expansion device for changing the progressive expansion level of

said irreversible compressed image data).

Regarding claim 6, Hiyama teaches:

- said storage control means 68 stores in said storage medium 70 said multiple

versions of image data along with the original image data diagnosis information (Fig. 8

and col. 5, lines 50-56, teaches diagnosis information, e.g., patient examination

database);

- said acquisition means 72 acquires the versions of image data and image data

groups along with said diagnosis information received in input means 62 (Fig. 8 and col.

5, lines 53-56, teaches retrieving a patient data in the patient examination database).

Regarding claim 7, Hiyama teaches:

- said image server 6 is provided with a diagnosis-status management means 76

for managing the diagnosis status (i.e., the examination ID data) of said original image

data (Fig. 8);

- said storage control means 68 controls, according to said diagnosis status,

which versions of image data are acquired at said display terminal 63 (Fig. 8).

Regarding claim 11, although neither Hiyama nor specifically teach that the

compression ratio is 1/5 to 1/50, such limitation is merely a matter of design choice d

would be obvious in the combined system of Hiyama and Yoshida. Yoshida teaches

controlling (i.e., changing) a compression ratio of the irreversible compressed image

data (col. 3, lines 43-50 and col. 31, lines 26-28). The limitation of claim 11 does not

define a patentably distinct invention over that in Hiyama and Yoshida since both the

invention as a whole and Hiyama and Yoshida are directed to changing the

compression ratio. The degree in which the compression ratio is changed is

inconsequential for the invention as a whole and presents no new or unexpected result,

so long as the compression ratio is successfully changed. Therefore, to have the

compression ratio that is 1/5 to 1/50 in Hiyama and Yoshida would have been a matter

of design choice to one of ordinary skill in the art.

Regarding claim 12, Yoshida teaches image transformation (col. 17, lines 61-64,

teaching the transformation of the compressed data in the decompression/expanding

process into the data in YCrCb format). The motivation is set forth in claim 2 above.

Regarding claim 14, Hiyama discloses:

- said image server 6 is provided with a storage control means 68 that creates

reversible compressed image data of the original image data, and at least one

irreversible compressed image data (Fig. 8; col. 5, lines 17-26), and stores in storage

medium 70 said reversible compressed image data and said irreversible compressed

image data, which stand for the multiple versions of image data (Fig. 8 and col. 5, lines

26-30);

- said display terminal 63 is provided with an input means 62 capable of receiving

specification of a version of the image data or the image data group to be displayed on

said display terminal 63, and acquisition means 72 for acquiring the version of said

image data or said image data group received in said input means (Fig. 8).

Hiyama does not disclose expressly changing a compression ratio of said

irreversible compressed image data.

Yoshida discloses controlling (i.e., changing) a compression ratio of the

irreversible compressed image data (col. 3, lines 43-50 and col. 31, lines 26-28).

Hiyama & Yoshida are combinable because they are from image compression

field.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to change the compression ratio of the irreversible compressed image data as taught by Yoshida in the compression system of Hiyama.

The suggestion/motivation for doing so would have been able to control the amount of image data to be stored in the memory (Yoshida, col. 3, lines 47-50).

Therefore, it would have been obvious to combine Hiyama with Yoshida to obtain the invention as specified in claim 14.

Allowable Subject Matter

6.   Claims 8-10 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7.   The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 8-10, the prior art, either taken singly or in combination, does not teach:

- deleting the original image data and the reversible compressed image data from high readout-speed capable storage medium after a predetermined period of time has elapsed.

Regarding claim 13, the prior art, either taken singly or in combination, does not teach:

- wherein the wavelet transformation produces an image whose length and width are reduced by 1/2, and image having a lengthwise edge component, and image having a widthwise edge component and an image having a diagonal edge component.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 18, 2005.

ANH HONG DO
PRIMARY EXAMINER